

ASSESSING SEEK FROM AN ADEQUACY PERSPECTIVE

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Kentucky's SEEK school finance program was the first in the country to be designed to provide an "adequate" funding base for each school within the state. At several places in the court decision in Rose v Kentucky, the judge stated that the redesigned Kentucky school finance system not only had to be equitable but also had to be adequate. In response, the state created a comprehensive new educational system. Among its components were: content standards that prescribed the curriculum to be taught all students; a new testing system that measured student learning related to those content standards; an aligned accountability system that offered rewards for schools making progress towards those standards, help for struggling schools, and sanctions for schools continuously failing to make progress, and the SEEK school finance formula designed to provide the needed fiscal resources.

The new SEEK formula had four critical elements:

- A base foundation revenue level that was designed to provide an adequate level of resources to school districts.
- A series of add-ons for special student needs, including at-risk and disabled students
- An equalized Tier I that allowed districts to raise 15 percent above the per pupil amount of their base plus add-on dollar amounts The state equalized these tax collections by guaranteeing 150 percent of the statewide average property wealth per pupil.
- An unequalized Tier II that allowed districts to raise an additional 30 percent above the per pupil amount of their per pupil base plus add-ons.

However, the method used to determine the initial “adequate” base SEEK revenue level was more pragmatic than subsequent methods that have been developed to determine adequacy. As we understand it, the method used in 1990 was to essentially define "adequate" as all state funds that were then expended for public schools, an estimated additional cost for all state mandates that at that time were unfunded, as well as all local dollars spent for schools. For the 1990-91 year, that produced a SEEK base amount of \$2,305. This number rose to about \$2,900 for 2000-2001, which is just short of keeping pace with inflation over those eleven years. In 2000-2001 terms, a fully inflation adjusted SEEK base would be \$3,160 (as the CPI rose by about 29 percent over the 1990s). Nevertheless, it would be fair to say that based on the methodology used in 1990, the SEEK base is about as adequate today in real terms as it was back in 1990-91.

But the adequacy issue today is not really whether the SEEK base has been appropriately adjusted by some inflation figure. Rather the adequacy question today, is whether the SEEK base provides sufficient funding for each school in the state to deploy powerful enough educational strategies to meet the state's 2014 goals, which are to have all students performing at or above the proficiency level on the state's student testing system. This is a more complex and more substantive definition of adequacy than was used in 1990. Today, adequacy in Kentucky requires a more direct link between the funding base and educational strategies that have potential to allow Kentucky's students to meet or exceed the state’s established proficiency levels. Since 1990, a variety of methods have been developed in different parts of the country that can help identify this linkage in both programmatic and fiscal terms.

To help Kentucky policy makers better understand the many complex issues surrounding establishment of an adequacy level, the first section of this report describes the four primary

methods for determining adequacy that have been developed over the past decade, and identifies the states currently using them. Section two then begins to assess the adequacy of the SEEK formula from this new adequacy perspective. That section discusses options the state may want to consider in determining the adequacy of the SEEK base, comments on the adequacy of the add-ons for at-risk and disabled students, and offers suggestions about adequacy as it relates to kindergarten, preschool, ESL programs and teacher salaries.

APPROACHES TO SCHOOL FINANCE ADEQUACY

Determining whether a state's school finance system is adequate is the newest and most dominant issue in school finance across the country (Ladd & Hansen, 1999). To be adequate, the school finance formula must provide a sufficient amount of funds so that schools can teach all – or at least all but the most severely disabled – students to state and district proficiency standards. This approach has great appeal for both policymakers and the courts; it seeks to link a funding level to a system performance level, a goal long sought.

But attractive though the adequacy goal is, it is not easy to define in specific, programmatic and dollar terms. Nevertheless, over the past ten years, education policy analysts have created four different methodologies for determining school finance adequacy (Ladd & Hansen, 1999; Odden & Picus, 2000):

- Economic cost function approach
- Identifying expenditure levels in districts/schools that meet performance benchmarks
- Professional consensus approach
- Cost of effective school wide strategies, or the state-of-the-art approach.

Except for the cost function approach, different states are using various versions of the other three methods.

Economic cost function approach.

The first approach relies on econometric techniques known as cost functions to estimate an adequate level of resources for schools. This method employs regression analysis with expenditure per pupil as the dependent variable, and student and district characteristics as well as *desired* performance levels as the independent variables. The question this approach seeks to answer is: how much money per pupil is needed to produce a given level of student performance? The result produces an adequate expenditure per pupil for the average district that would be used as the foundation expenditure level, or in Kentucky, the SEEK base. This amount is then adjusted by one overall value to account for differences in pupil need and educational prices, as well as diseconomies of both large and small size across districts. The expenditure level is higher (lower) as the expected performance level is increased (decreased). The adjustment would replace all current SEEK add-ons, except for transportation.

This analysis usually produces an adjustment for city districts of two to three times the average expenditure level in the rest of the state. When combined with its reliance on complex statistical analyses that are difficult for most policy makers to understand, use of cost functions is problematic in the real political context of school finance reform (Reschovsky & Imazeki, 2000a). No state currently uses this approach to determine school finance adequacy, but proposals have been made for, among others, Illinois and New York (Reschovsky & Imazeki, 2000b; Yinger, 2001).

Linking expenditure levels in districts/schools that meet performance benchmarks.

The method, which is being used in part by Ohio, Illinois and Mississippi, identifies districts that have been successful in teaching their students to state proficiency standards, and sets the adequacy level at the weighted average of the expenditures of such districts (Augenblick, 1997; Hinrichs & Laine, 1996). Usually, atypical districts are eliminated from such analysis. Unfortunately, atypical districts generally include all *big city districts*, as well as very wealthy and very poor districts, and often very small rural districts as well. The result is that the districts identified in the analysis are usually non-metropolitan districts of average size and relatively homogeneous demographic characteristics, which generally spend below the state average.

One major criticism of this approach is that the adequate expenditure level is not relevant to big city districts, even when adjustments for pupil needs and geographic price differentials are added to the base. This approach also lends itself to manipulation. Though analysts suggest that the adequate expenditure level should be the weighted average of all the expenditures of the districts meeting the performance benchmark, some policymakers have suggested using the average of only the bottom half of that sample, using an unweighted average, or even using the value of just the lowest expenditure district in the sample – in order to drive down the value of, and thus the state cost of, the adequate foundation expenditure level.

Neither this approach, nor the cost function approach, indicate how funds distributed to school districts would be used. They theoretically identify an adequate revenue level, but are silent on the types of educational strategies those funds could support. The next two approaches attempt to remedy that shortcoming.

Professional consensus approach

A third approach to determining school finance adequacy is known as the professional consensus approach. Under this approach, the state creates several teams of local education experts who independently identify effective school wide strategies and their key ingredients – numbers of professional staff and other resources. The ingredients are then priced out and added up to determine the adequate fiscal base for a school; the base can then be adjusted based on the differing characteristics of students and districts. Originally developed by Jay Chambers and Tom Parrish as the Resource Cost Model (Chambers & Parrish, 1983, 1994,) the professional consensus model (Guthrie & Rothstein, 1999; Management Analysis & Planning, 2001), is being used in Oregon, Maine and Wyoming and is under consideration in a number of other states.

Though this approach usually identifies effective educational strategies to some degree, and so provides a stronger linkage between funding levels and possible education programs, its major limitation is that it depends on the judgments of educational professionals in identifying strategies rather than research that actually shows a linkage between strategy and student performance. Further, it provides for little differentiation between strategies for the average school and strategies for schools with higher concentrations of at-risk students (see for example, Management Analysis and Planning, 2001).

Cost of effective school wide strategies, or the state-of-the-art approach.

The fourth approach takes research findings as embodied in a high performance, or a comprehensive school design, identifies all the ingredients needed for all elements of the design's educational strategies, determines a cost for each of those ingredients, and then uses that figure to determine an adequate spending base for each school. This system was developed in part because it identifies a set of specific educational programs and strategies that represent state-of-

the-art knowledge about education effectiveness and puts a dollar figure on their costs. It combines several of the advantages of some of the preceding methods; because each comprehensive school design draws upon research that links strategy to student performance, this method has a direct performance link, and by drawing upon the compilation of strategies incorporated into several comprehensive school designs, it draws upon the craft wisdom of some of the best educators in the country who have combined research on individual programs into comprehensive school wide strategies. When used, moreover, it thus provides schools with a funding level that allows them to deploy any of a large number of school wide educational strategies, each of which represents the best of what both research and the top practitioners claim are the most effective educational strategies and that represent current state-of-the-art professional knowledge in education.

Odden (1997) identified the costs of seven school wide designs that were created by the New American Schools, and in subsequent analyses, showed how, via resource reallocation, they were affordable at schools spending at the average or median level of expenditure per pupil in the country (Odden & Busch, 1998; Odden & Picus, 2000). His analysis, however, did not include adequate planning and preparation time for teachers and did not standardize costs across various designs, so his cost figures are probably somewhat underestimated.

Implementation of this approach in New Jersey

New Jersey adopted this approach to adequacy in 1998 when its supreme court concluded that state's school finance system was adequate because it provided more than sufficient funds for schools to adopt and fund via resource reallocation an enriched version of the most expensive comprehensive school design – the Roots and Wings/Success for All design. Since Roots and Wings, along with the Modern Red Schoolhouse, are the most expensive school designs now on

the market, funding in New Jersey was not only adequate for these designs, but also there was enough money for any of the other school wide educational designs as well.

When New Jersey districts began to implement the court's decision, however, they discovered that each school design apparently had a different cost. This was somewhat problematic because it was not possible and in some cases illegal for districts to provide different funding levels to schools (assuming common numbers of students and student needs) just because a school had chosen a design was more expensive than another. Upon further analysis, though, the state discovered that the different costs actually represented different levels of service and different combinations of individual program elements. By standardizing levels of service for each program element and insuring that each design had all relevant program elements, the state produced a structure that simultaneously provided both a common way to resource all schools and adequate revenues for six different designs that the state had approved, with the most expensive – Roots and Wings – the default design.

Building on this approach, Odden (2000) suggested a funding structure for a school that could accommodate all extant school designs and that ensured that each had similar service levels in all program elements and that included all relevant program elements such as a strategy for students who were struggling to learn to proficiency standards, planning and preparation time for teachers, sufficient professional development and adequate computer technologies.

Further specifics on the cost of effective strategies approach

The following provides more detail for the state-of-the-art approach and shows how it uses both research findings and craft wisdom from the practitioner creators of the “comprehensive school designs,” which themselves are compilations of research and best

practice knowledge, into cohesive school-wide strategies (Stringfield, Ross & Smith, 1996; Northwest Regional Educational Laboratory, 1998).

Identifying the ingredients of a high quality program: This approach identifies a set of ingredients that are required to deliver various elements of a high quality instructional program, and then determines an adequate expenditure level by placing a price on each ingredient and aggregating to a total cost. The difference between this model and the professional consensus approach is that the school design is based on research and extant models of school design rather than the professional judgment of educators that the resource available would be adequate to meet a pre-determined performance goal. It proceeds the following way:

Research shows that high quality preschool, particularly for students from lower income backgrounds, has significant long-term impacts on student academic achievement, as well as other desired social and community outcomes (Slavin, Karweit & Wasik, 1994; Barnett, 1995, 1998). Thus, the state school finance system should allow each district to provide preschool for at least every child aged 3-4 from a family with an income below or just above the poverty level.

Research further shows that full day kindergarten, particularly for students from low-income backgrounds, also has significant, positive impacts on student learning in the early elementary grades (Slavin, Karweit & Wasik, 1994). Thus the state school finance system should allow each district to count each kindergarten student as a full 1.0 student in the formula in order to provide a full-day kindergarten program.

Research on *school* size is clearer than research on *class* size; the optimum size for elementary schools is 300-500 and the optimum size for secondary schools is 600-900 (Lee & Smith, 1997; Raywid, 1997-98). Thus, no elementary school unit should be larger than 500 students and no secondary school unit should be larger than 1000 students. Given the current

stock of large school buildings, this means creating several independent “schools” within these larger buildings, each with a separate student body, separate principal and separate entrance. It also means no construction of large school buildings in the future. All subsequent discussion assumes a school unit of 500 students. Research on class size shows that small classes of **15** (not 18, not 20, and not a class of 30 with an instructional aide or two teachers) in kindergarten through grade 3 have significant, positive impacts on student achievement in mathematics and reading (Grissmer, 1999). The impact is larger for students from low income and minority backgrounds. Thus, class sizes should be 15 in grades kindergarten through grade 3; this policy might arguably be limited to schools with a pre-dominance of lower income and minority students, but politically that would be problematic. Class sizes in other grades should be no larger than an average of 25, which is about the national average and the size on which most comprehensive school reform models are based.

Teachers need some time during the regular school day for collaborative planning and ongoing curriculum development and review. Schools also need to teach art, music, library and physical education. Providing each teacher one period a day for collaborative planning and curriculum development requires an additional 20 percent allocation of teachers to those needed to provide the above class sizes. These extra teachers would teach art, music, library, physical education of whatever additional topic was desired, and the regular teacher would be free to engage in collaborative planning and other preparation during this time.

Every school should have a powerful and effective strategy for struggling students, i.e., students that must work harder and need more time to achieve proficiency levels. Not all students learn the material when it is first presented; they need extra time and extra help. Such students frequently include those from lower income backgrounds, those struggling to learn

English and those with learning and other mild disabilities. The most powerful and effective strategy for such students is individual one-to-one tutoring, provided by licensed teachers (Shannan, 1998; Wasik & Slavin, 1998). From the practice of many comprehensive school designs, a ratio of one fully licensed teacher tutor for every 20 percent of students in poverty, with a minimum of one for every school, is the standard. Thus, school units of 500 students should have from one to five teacher tutors.

This allocation would cover the needs of students from low income backgrounds, students whose native language is not English and are learning English, and the learning disabled. Schools should be free to use the resources for whatever strategy they select, but should be held accountable for having these students learn to proficiency levels.

Students with more severe disabilities, and with speech and hearing impairments, would need to be funded on a program and service basis. The extra costs for students with disabilities, especially the low-incidence, high cost students, should be fully borne by the state.

Schools also need a student support, family outreach strategy. Various comprehensive school designs provide different ways to provide this program entity. In terms of ingredients, the more needy the student body, the more comprehensive such a strategy needs to be. The general standard is one licensed professional for every 20-25 percent of students from a low-income background, with a minimum of one for each school of 500 students.

All school faculties need ongoing professional development. From both research on the costs of effective professional development – professional development that produces change in classroom practice that leads to improved student achievement – and the costs of professional development to implement comprehensive school designs, schools need about \$4000 per teacher for ongoing professional development (Odden & Archibald, 2001), about half for an onsite

"coach" or "instructional facilitator" and half for other professional development costs. This funding level would allow each school to have one full-time professional development coach on site (about \$45-50,000 per school) and to provide for 100-200 hours of professional development per teacher each year (about \$2000 per teacher).

Finally, over time schools need to embed technology in their instructional program and school management strategies. Based on the school designs that include such technology, the costs are about \$125,000 for purchase, updating and maintenance of hardware and software, which for the next decade or so at least should be viewed as an annual operating cost (Odden, 1997).

In sum, school units of 500 students would need the resources indicated in Table 1. If a secondary school had 1000 students, the numbers would need to be doubled. The figures would need to be prorated for schools with fewer students, but schools should not have fewer than 300 students, except in sparsely populated, rural areas. The figures in Table 1 include full-day kindergarten programs. The resources are sufficient for schools to deploy any of a dozen or more comprehensive school reform strategies (Analt, Goertz & Turnbull, 1999; Odden, 1997, 2000).

It would be relatively straightforward to compare the staffing in each of Kentucky's schools with the numbers in the table; differences would indicate whether the state and district systems were adequate, at least in terms of numbers. Note that there are no instructional aides in the model, mainly because no comprehensive school design includes instructional aides and because research generally shows they do not add value (Achilles, 1999).

Table 1
School Level Resources Required for an Adequate Education Program

<i>Elementary School Unit of 500 Students</i>	<i>Secondary School Unit of 500 Students</i>
1 Principal	1 Principal
1 Full time instructional facilitator, coach	1 Full time instructional facilitator, coach
29 Teachers; class size of 15 in K-3, otherwise 25	20 Teachers; class sizes of 25
6 Art, music, Physical education, library, etc. teachers	4 Art, music, Physical education, library, etc. teachers
1-5 Teacher Tutors; 1 for each 20 % students from low income background with a minimum of 1	1-5 Teacher Tutors; 1 for each 20 % students from low income background with a minimum of 1
1-5 Positions for student/family support; 1 for each 20-25 % students from low income background with a minimum of 1	1-5 Positions for student/family support; 1 for each 20-25 % students from low income background with a minimum of 1
\$74,000+ for professional development	\$54,000+ for professional development
\$125,000 for computer technologies	\$125,000 for computer technologies
Secretarial support, lunch and food support, and operations and maintenance	Secretarial support, lunch and food support, and operations and maintenance

The ingredients (teachers and aides) for preschool would need to be added for children aged 3 and 4 from lower income backgrounds. The easiest way to do this would be to allow each district to count each such pre-school student in determining the number of students in the district for state aid purposes. Fully trained and licensed preschool teachers then could and should be employed and paid according to the district's salary structure. It would be wise, however, to allow neighborhood institutions to provide preschool programs, along with the public schools (if there was space) as is the case with Head Start.

Pricing the ingredient: The last step in both the professional consensus and the state-of-the-art approach is appropriately pricing all ingredients, or setting teacher salaries. This is a step

that usually uses a statewide average teacher salary, but such a strategy significantly understates what districts might need to pay for quality teacher talent.

There are two approaches that could be used to make the salary figure reflect what it actually takes in dollar terms to recruit and retain teaching talent. The first is to use a cost of education index that has been developed by the National Center for Education Statistics, which generally shows within a state, the different prices districts must pay for a given set of teacher qualities; the results usually show that big cities need to spend 20-30 percent more. But this cost-index approach just quantifies differences across districts within a state; it does not indicate what the state average should be in relationship to the labor markets for teacher talent within which a state's districts compete for teacher talent.

A second pricing strategy then is to determine salary benchmarks by labor market regions in a state; this approach would identify not only the salary benchmark for beginning-teachers, but also benchmarks for mid-career and top-career teacher salaries. And the benchmarks should be for the various labor markets within which the state's districts compete for teachers.

In addition, since the current single salary structure is becoming unattractive to many new teachers (Odden & Kelley, 2002) and is ineffective as a structure for providing overall salary increases (Ballou & Podgursky, 1997), the structure of teacher salary schedules should shift from providing salary increases on the basis of years of experience and education units and degrees, to more direct measures of teacher knowledge and skills (Odden, 2001; Odden & Kelley, 2002). Such a schedule, identified in Table 2, would link teacher pay levels to teacher performance and effectiveness in the classroom. The table also indicates where salary benchmark figures would be needed, and which could vary by region of the state. The state foundation expenditure level – the SEEK base – then, would need to be high enough to allow all districts to pay their teachers at

or above their appropriate salary benchmarks – given a common set of staffing which could be derived from Table 1.

Table 2
Basing Teacher Salaries on Performance and Classroom Effectiveness

Performance Category	Salary Benchmark	Knowledge and Skills Incentives (in addition to column 2)
Novice Teacher , a teacher with a provisional license	Average beginning salary for all college graduates	Masters Degree in content area
Apprentice Teacher , a teacher who has just earned the Standard License	Need a benchmark.	15% additional for licensure in a shortage area such as math, science, special education
Career Teacher , a teacher who is proficient in content specific pedagogy	Need a benchmark.	Licensure in a second subject
Advanced Teacher , a teacher who meets some advanced performance standard	Benchmark for top teaching talent	Small percentage or dollar increase for having expertise in a particular school site design
National Board Certified Teacher	15% above that for Advanced Teacher	

The type of new salary schedule identified in Table 2 has several additional advantages:

1) it is a performance-pay structure generally more attractive to younger teachers who are now being recruited into education; 2) it allows for a faster track to the top of the schedule for teachers whose expertise can meet the performance standards more quickly than that of the average teacher; and 3) it is a more attractive structure than the current structure for policymakers who want to increase teacher salary levels. In addition, it can be augmented with a school-based incentive system, like that currently operating in Kentucky, which provides annual

salary bonuses to teachers if the school as a whole meets pre-set targets for improved student achievement.

Assessing the Adequacy of SEEK

All four of the above methods could be used to determine the adequacy of the SEEK spending base. We would recommend giving primary attention to the state-of-the-art approach for three reasons:

1. It can provide a dollar estimate for adequacy
2. It draws from the best research and the best craft wisdom
3. It is clear about the key program elements that should be included in the overall educational strategy at each school site.

From a stratified sample of schools, Kentucky could quite easily determine whether the ingredients in schools at different spending levels and with different student needs and in different regions of the state were equal to or greater than those in Table 1. If they were, then the current SEEK program could be said to be adequate in terms of providing a sufficient number of teachers for various educational strategies (the issue of teacher pay and teacher quality would still need to be determined in a separate analysis).

Further, the state could conduct a quasi-professional judgment crosscheck analysis of the adequacy of Table 1. To do so the state would convene a series of educator panels to identify effective educational strategies and their ingredients, and then could compare the ingredients and resources in Table 1 to those suggested by the panels. Our guess would be that the ingredients in Table 1 would be sufficient for any suggested strategies. That certainly is the case in comparing the ingredients in Table 1 to recommendations about adequate spending levels that have been made in other states (see for example, Management Analysis and Planning, 2001) and to all the

major school designs that exist (e.g., Odden & Picus, 2000; Odden, 2000). The panel approach in Kentucky would serve more as a confirming of the elements in Table 1, and thus use of them for analyzing adequacy in Kentucky, rather than for producing recommendations on what the educational strategies and related ingredients would be in the first instance.

Adequacy of SEEK add-ons

The SEEK finance program has two major add-ons for special needs students (in addition to the transportation add-on which this report does not assess). At-risk students, defined as students who qualify for the federal free lunch program, are counted an extra 15 percent. There are three categories of add-ons for disabled students: severely disabled students are counted an extra 2.35, moderately disabled students are counted an extra 1.17 and students needing speech therapy are counted an extra 0.24.

The *at-risk add-on* is the equivalent of providing an extra 15 percent times the SEEK base (~\$3000), or about \$450, for every student who qualifies for free lunch. From our perspective of adequacy, this extra funding needs to be used to fund a tutoring (or equally powerful intervention) program for at-risk students; the funds should not be used just to increase the district or school budget, or to raise salaries a bit. The dollars should be focused to provide the extra help at-risk students need so they can learn to the state student performance standards.

Is the \$450 per at risk student figure adequate? To answer this question, consider a school of 500 students with 100 percent eligible for free lunch. The at-risk add-on would produce an extra \$225,000 (500 times \$450) for the school, which assuming the average cost of a licensed tutor in salary and benefits is \$45,000, would be sufficient to purchase the five tutors the adequacy model in Table 1 suggests. So *if* eligibility for free lunch is the right indicator for

students who are at-risk, *if* the funds were used for a specific extra help strategy, and *if* \$45,000 is a competitive salary, then according to Table 1, the 15 percent add-on is adequate.

But many states define at-risk as students who qualify for free *and* reduced price lunch. Further, since the recent reforms of the federal welfare program, the number of students eligible for free lunch is going down in many states as more families have working members who raise family income. However, for most such households, family income does not rise very much. It rises enough, however, to shift many students' eligibility from free to reduced price lunch. These phenomena are probably true in Kentucky as well. Thus, the number of students eligible for free *and* reduced price lunch is probably a better indicator of students at-risk, today, than just the number eligible for free lunch. In order to make Kentucky's at-risk add-on adequate, therefore, the state should change eligibility for the 15 percent extra to students who qualify for free *or* reduced price lunch. This might modestly expand the number of students counted but it would ensure that those students who need the extra help trigger the funds so districts and schools can provide that extra help.

ESL students. If reduced price eligibility were included in the definition of at risk students, Kentucky might not have to create an ESL add-on to its school finance system. However, the number of students whose native language is not English, and who must learn English as well as the academics, is rising in Kentucky. Many of these students will need extra help to learn to the state's academic performance standards and to learn English. But the ESL students who need the extra help are often those from lower income family backgrounds and in many cases are eligible for free or reduced price lunch. Thus the state's current at-risk add-on, particularly if it covered students eligible for free or reduced price lunch, would provide extra funds for these ESL students. A tutoring or equally powerful extra help program funded by these

add-on dollars, together with an academic program delivered via a sheltered-English instructional approach, should be a sufficiently powerful educational strategy to have ESL students learn both academics as well as English. For example, the Roots and Wings/Success for All school design, which includes tutors for struggling students, comes in two equal cost forms for a given percentage of low income students – one when the student body is English speaking and one when it has large numbers of ESL students. Thus, a small enhancement of the current at-risk add-on would probably make this program element adequate for the needs of ESL students as well.

Full-day kindergarten. Since students from lower income backgrounds are also helped by full day kindergarten as discussed above, we would recommend that an adequate SEEK formula count all kindergarten students as 1.0 students and expect all school districts to **a** provide full-day kindergarten. At the minimum, adequacy would require the state to allow districts to count all students eligible for free or reduced price lunch as 1.0 in determining the number of students to be used in calculating state aid under the SEEK program. The latter strategy would have the state helping to pay for full day kindergarten for those students that research says will benefit the most from the program. Making full day kindergarten a local option is not sufficient if the goal is to make the Kentucky school finance formula adequate.

Special education students. Not being able to conduct a separate analysis of the costs of students eligible for special education services, we are not able to state with certainty that the current weights for disabled students are adequate. We know that experts in special education funding have concluded with several new state-specific studies that an overall extra weight for all disabled students of 1.3 (or counting all students with a disability as 2.3 students), the

standard school finance recommendation (Odden & Picus, 2000), is still appropriate today (Chambers, 1998).

Using this standard, it seems that Kentucky's current weights for special education students could be a bit low. The weights of 2.35 for the 12,341 severely disabled, 1.17 for the 44,685 moderately disabled and 0.24 for the 21,901 speech impaired in 1999-2000, produce an extra number of disabled students of 86,538, each of which triggers about \$3,000 extra dollars when applied to the SEEK base. But the total number of disabled students, combining all three categories, is 78,297. The 86,538 figure represents an overall extra weight of just 1.10. If the actual overall extra weight should be 1.30 -- the standard school finance recommendation -- the number of additional pupil units would be 102,323, or 15,785 more than the current weights produce. That extra number of pupil units times the \$3,000 SEEK base would suggest that an additional \$47.4 million would be needed to make the weights for disabled students adequate. Of course, this conclusion depends on whether the overall 1.3 extra weight is correct for Kentucky, which would require a special study to determine. However, a study of Kentucky conducted about five years ago generally found, overall, that expenditures for the disabled were about equal to the revenues generated by the weights but that expenditures in wealthier communities exceeded those additional revenues (Chambers & Dueñas, 1996).

But even if the current special education weights could be increased modestly to make them adequate, there still might be problems in using those weights for specific districts in specific instances. For example, the state uses prior year special education student counts to determine the add-on weights for current year state aid purposes. If a small district enrolls one or two students with multiple disabilities in one year, sufficient aid would not be triggered until the subsequent year. This “glitch” could be remedied by using current year pupil counts. This

would be somewhat different than the current formula, which relies on prior year enrollments with an adjustment for growth, but does not accommodate special education needs for severely disabled children until the following year. Alternatively, Kentucky might want to update its approach to funding for the disabled by shifting to census plus approach, as other states from Vermont to California are now doing. Under a census approach, the state assumes that all districts have a certain percentage of students with low to moderate disabilities. This percentage could be adjusted up or down by a poverty factor, providing a somewhat larger percentage to lower income districts and a somewhat smaller percentage to higher income districts. The state then would provide a fixed add-on weight for this percentage – for example, an extra 1.17 like the current moderate weight. Districts would receive the extra funding this weight would trigger and be required to fully serve all low and moderately disabled students. This would eliminate the need to identify large numbers of students for state aid purposes, though each district would still need to appropriately implement the IEP process and serve all students who qualify, and be held accountable for their academic achievement to state performance standards.

Students with severe disabilities who are usually higher cost and lower incidence, would then be funded fully by the state, but we would guess that the costs on average would be higher than indicated by the 2.35 extra weight that is now the add-on for this category of students.

Teacher salary benchmarks. As indicated above, in order to determine whether current teacher salaries are adequate, a special study would need to be conducted to determine appropriate teacher salary benchmarks for various Kentucky districts. Though Kentucky now seeks to compare its average teacher salaries to benchmarks in states in the Southern Regional Education Board, the fact is that the primary competition for teachers is in the Northern Kentucky/Cincinnati labor market, not with the SREB states. Further, benchmarks need to be

developed not within the education market, but within the broader labor market. Many private companies recruit teacher talent for a variety of roles. This is particularly true for teachers in science, mathematics, and computer technologies, but this general competition exists for all teacher talent. Thus, a benchmarking study would need to analyze teacher competitiveness with the broader labor market, and focus on those regions where the fiercest competition exists for recruiting and retaining teachers exists, including the Northern Kentucky/Cincinnati area.

SEEK Tier I and Tier II limits. Finally, many have wondered whether the Tier I and Tier II add-ons should be based on just the SEEK base, or the SEEK base with all the pupil need add-ons. We would argue that if the pupil need add-ons were adequate for all districts and all student groups, and if the SEEK base included sufficient funds for all needed ingredients needed for the types of educational strategies needed to teach students to the Kentucky performance standards, including adequate teacher salaries, then there is little rationale to apply the extra spending limits to the SEEK base plus the student add-ons. It would be simpler and fairer to apply those limits to the SEEK base per se.

Today, that would mean that Tier I extra spending would be limited to \$450 for all districts (15 percent times ~\$3000). Tier II extra spending would be limited to \$900 for all districts (30 percent times ~\$3000). To transition to such a system, the dollar limits for both Tier I and Tier II could be grand fathered for all districts with current add-ons above these two figures. The dollar figures for the 15 and 30 percent limits would increase as the SEEK base increased over the years above the current ~\$3,000 per pupil level, and at some point in the future exceed the grand fathered districts current resource levels for Tier I and Tier II.

But these comments are made with several qualifiers, which include:

- Assuming the SEEK base is adequate

- Assuming all student add-ons are adequate
- Assuming teacher salary levels are adequate.

These are big IFs. Until these IFs are resolved, it would be best to leave the Tier I and Tier II limits as is. But the goal should be to have them at some point apply just to the SEEK base.

Conclusion

In this paper we have attempted to outline a process by which Kentucky can assess the adequacy of its current school funding formula. The key to determining adequacy is to first ascertain what educational resources are necessary to insure that all (or at least most) students can perform to the high standards established for the year 2014 when all students are expected to perform at the proficient level on the state's standardized test.

We have recommended reliance on a process that compares current resource allocation in schools to existing models of school reform that research has shown are successful in improving student learning. By developing prototype, or model, schools that offer the resources needed for these models, it is possible to compare Kentucky school districts' current resource allocations to the model proposed in Table 1 above and estimate the costs of all of the ingredients. Once sufficient resources have been identified, including competitive teacher salary levels, adjustments for student characteristics (at risk, English language learners, children with disabilities) need to be considered as well as adjustments for district characteristics (size, population density, and price).

This paper does not attempt to actually determine the adequacy of the current SEEK formula, but rather has established a framework for doing so. Before conducting an actual adequacy assessment, it is first essential that Kentucky educators and policy makers reach

agreement on the approach to be used to assure an adequate education for all of the state's children.

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